

ACCESSION NR: AP3003302

plastics (RP). Resins EN-L (copolymer of ED-5 epoxy resin with an oligoamide (L-18, L-19, or L-20 ) based on linseed oil esters), ENF15/1 (phenolic-resin-modified EN-L), and ENK-1 (modified TE-9 organosilicon resin cured with oligo-amides) were tested as binders, and glass fabrics ASTT(b) 16/10, satin 8/3, and satin TS 8/3, as reinforcements. The best physicommechanical properties were exhibited by RP reinforced with the satin fabrics. AGM-3, GZ11/12, and GVS-9 finishes were tested. GVS-9 was the most effective in enhancing the RP's binder-to-reinforcement adhesion and water repellency. Study of the effect of the three oligoamides and of different amide/epoxy ratios on the properties of RP showed that, depending on the amide used, the optimum amide concentration in the binder varies from 20 to 50%. Hence, desired properties of RP can be obtained by selecting the appropriate amide and ratio. Study of manufacturing techniques revealed that RP molded at 100C and less than 5 kg/cm<sup>2</sup> have good physico-mechanical properties and can be produced in cheap metal-plastic molds or by contact molding. For example, RP molded at 2 kg/cm<sup>2</sup> had an impact strength of 259—415 kg cm/cm<sup>2</sup>, a Brinell hardness of 49.8—60.9 kg/mm<sup>2</sup>, a bending

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strength of 6010—7010 kg/cm<sup>2</sup>, a tensile strength of 5840—6480 kg/cm<sup>2</sup>, and an elastic modulus in bending of (1.6—2.00) 10<sup>5</sup> kg/cm<sup>2</sup> and in tension of (3.65—3.7) 10<sup>5</sup> kg/cm<sup>2</sup>. Additional heat treatment can further improve water resistance, impact strength, and hardness 10—15%. Pot life of the binder can best be increased by the technique of applying amide resin on one side and epoxy resin on the other side of each fabric sheet prior to molding. Two-hour boiling tests indicated that RP based on ENF 15/1 (5% or more phenolic resin) were more water resistant than RP based on EN-L. RP based on ENK-1 had poorer physicommechanical properties than RP based on EN-L but were more heat resistant. The new RP are recommended for use in the electrical and radio industries because of their good dielectric properties.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 001

Card 3/3

SOV/137-58-8-18101

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 270 (USSR)

AUTHORS: Solntsev, N. I., Chudina, R. I.

TITLE: Application of Polarography in the Phase Analysis of Ores and Their Concentrates for Lead Compounds (Primeneniye polyarografii pri fazovom analize rud i produktov ikh obogashcheniya na soyedineniya svintsa)

PERIODICAL: Sb. nauchn. tr. Gos. n. -i. in-t tsvetn. met., 1958, Nr 14, pp 80-92

ABSTRACT: In the phase analysis of ores and their concentrates, 15 - 25% solutions of various salts are used as selective solvents. Taking into account the volume of the solvent and the wash waters, the optimum conditions for the polarographic determination of all forms of Pb are created directly in the solution obtained. The records are adduced of the determination of the total contents of Pb and of the determination of Pb in the form of anglesite, cerussite, galenite, and also Pb in the case of the presence of crocoite and wulfenite, pyromorphite, and vanadinite; pyromorphite, mimetisite, crocoite and wulfenite; plumbojarosite, bieberite, and bedanite. The results of the

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SOV/137-58-8-18101

Application of Polarography in the Phase Analysis (cont.)

determinations of various forms of Pb are added up and compared to the total Pb contents. The discrepancy should not exceed 10%.

N. G.

1. Ores—Analysis
2. Lead—Determination
3. Polarographic analysis

Card 2/2

SOV/137-58-8-18108

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 271 (USSR)

AUTHOR: Solntsev, N. I., Chudina, R. I.

TITLE: Employment of Amperometry in the Phase Analysis of Ores and Concentrates for Zinc Compounds (Primeneniye amperometrii pri fazovom analize rud i produktov obogashcheniya na soyedineniya tsinka)

PERIODICAL: Sb. nauchn. tr. Gos. n. -i. tsvetn. met., 1958, Nr 14, pp 103-111

ABSTRACT: The possibility is indicated of the determination of Zn compounds in the products of phase analysis with the aid of the amperometric titration of Zn with a solution of ferrocyanide with a Pt anode. The titration is carried out in an ammonium-acetate medium in the presence of Pb, Cu, and small quantities of Fe. Cu is combined into an ammoniacal and Pb into an acetate compound. Fe oxide is quantitatively precipitated in the form of the hydroxide (basic salt) which does not react with the ferrocyanide. If Fe is present in large amounts, the titration is carried out in an ammonium citrate medium wherein Fe is combined into a stable citrate compound. The anodic polarization of the indicator

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SOV/137-58-8-18108

Employment of Amperometry in the Phase Analysis of Ores (cont.)

electrode during amperometric titration permits the determination of Zn in the presence of a vanadate ion which does not produce any anodic reaction. Cr likewise does not produce any electrode reaction on the anode and does not impede the titration of Zn. The amperometric determination of Zn in ores reduces the duration of a phase analysis considerably. Methods are adduced for the determination of the total Zn content and for the Zn contents of adamine and calamine, of smithsonite, descloizite, sphalerite, calamine and smithsonite and Zn in the insoluble residue.

A. M.

1. Zinc compounds—Determination
2. Zinc ores—  
Volumetric analysis

Card 2/2

SOLNTSEV, N.I.; CHUDINA, R.I.; KULICHIKHINA, R.D.

Determination of chrysocolla copper. Sbor. nauch. trud.  
Gintsvetmeta no.18:109-117 '61. (MIRA 16:7)

(Tailings (Metallurgy)---Analysis)  
(Copper---Analysis)



SOLNTSEV, N.I.; CHUDINA, R.I.; SAVINA, Ye.V.; KULICHIKHINA, R.D.

Phase constitution of molybdenum-bearing precipitates obtained  
from molybdate solutions by reduction with hydrogen. Sbor.  
nauch. trud. Gintsvetmeta no.18:155-164 '61. (MIRA 16:7)

(Molybdenum--Metallurgy)  
(Vapor-liquid equilibrium)



SOLNTSEV, N.I.; CHUDINA, R.I.

Chemical phase analysis of alkali melts for lead compounds.

Sbor. nauch. trud. Gintsvetmeta no.19:750-755 '62.

(MIRA 16:7)

(Alkalies—Analysis)

(Lead compounds—Analysis)

LAVROVA, A.P., kand. tekhn. nauk; GNOYEVVOY, P.S., inzh.; KALENOVA, M.S., starshiy nauchnyy sotrudnik; GUSEVA, A.N., mladshiy nauchnyy sotrudnik; MOROZOVA, L.I., mladshiy nauchnyy sotrudnik; KHARITONOV, V.A., inzh.; KANAREVSKIY, A.A., inzh.; MAZYAKIN, A.V., inzh.; LISHFAY, V.M., inzh.; IL'YASHENKO, M.A., kand. veter. nauk; RYNDINA, V.P., inzh.; LOGINOVA, M.M., mladshiy nauchnyy sotrudnik; CHUDINA, S.A., mladshiy nauchnyy sotrudnik; TRUDOLYUBOVA, G.B., starshiy nauchnyy sotrudnik; KARGAL'TSEV, I.I., assistant; MIKHAYLOVA, A.Ye., mladshiy nauchnyy sotrudnik; KARPOVA, V.I., mladshiy nauchnyy sotrudnik; MERKULOVA, V.K., mladshiy nauchnyy sotrudnik; POLETAYEV, T.N., mladshiy nauchnyy sotrudnik

Study of the heat treatment conditions of smoked and cooked sausage. Trudy VNIIMP no.16:24-63 '64. (MIRA 18:11)

1. Kafedra tekhnologii Moskovskogo tekhnologicheskogo instituta myasnoy i molochnoy promyshlennosti (for Kargal'tsev).

CHUDINA, S.G.

Early diagnosis of malignant neoplasms. Zdrav. Kazakh. 21 no.6:21-  
24 '61. (MIRA 15:2)

1. Iz Kazakhskogo instituta tuberkuleza.  
(CANCER DIAGNOSIS)

SHAPOSHNIKOV, V.N.; OSNITSKAYA, L.K.; CHUDINA, V.I.

Use of acetic acid as a sole source of carbon by the photosynthesizing bacteria *Chromatium vinosum*. Mikrobiologiya 29 no.1:14-20 Ja-F '60. (MIRA 13:5)

1. Institut mikrobiologii AN SSSR.  
(CHROMATIUM metab.)  
(ACETATES metab.)  
(PHOTOSYNTHESIS)

SHAPOSHNIKOV, V.N.; OSNITSKAYA, L.K.; CHUDINA, V.I.-

Consumption of acetic and propionic acids by *Chromatium vinosum*  
in case of their simultaneous presence in the culture medium.  
Mikrobiologiya 29 no.3:320-322 My-Je '60. (MIRA 13:7)

1. Institut mikrobiologii AN SSSR.  
(CHROMATIUM) (ACETIC ACID)  
(PROPIONIC ACID)

SHAPOSHNIKOV, V.N.; OSNITSKAYA, L.K.; CHUDINA, V.I.

Participation of propionic acid in the constructive metabolism of  
Chromatium vinosum, Mikrobiologiya 29 no.2:164-169 Mr-Apr '60.

(MIRA 14:7)

1. Institut mikrobiologii AN SSSR.  
(CHROMATIUM VINOSUM)

(BACTERIOLOGY--CULTURES AND CULTURE MEDIA) (PROPIONIC ACID)

SHAPOSHNIKOV, V.N.; OSNITSKAYA, L.K.; CHUDINA, V.I.

Development of the purple sulfur bacterium, *Chromatium vinosum*, in various light intensities. *Mikrobiologiya* 30 no.5:825-832 S-0 '61.  
(MIRA 14:12)

1. Institut mikrobiologii AN SSSR.

(BACTERIA, SULFUR)

(LIGHT--PHYSIOLOGICAL EFFECT)

(*CHROMATIUM VINOSUM*)



1 1154-65 EWG(a)-2/EWG(c)/EWG(j)/EWG(r)/EWI(1)/PS(v)-1/EIC(v) DP

AUTHOR: Osnitskaya, L. K.; Chudina, V. I.

TITLE: Significance of spectral composition and intensity of light in the development of the purple sulfur photosynthetic bacteria *Chromatium vinosum*

SOURCE: Mikrobiologiya, v. 34, no. 1, 1965, 19-23

DESCRIPTORS: photosynthesis, sulfur bacteria light spectrum, carbon

ABSTRACT: A pure culture of *Chromatium vinosum* was grown on Van Niel's mineral medium containing 0.2%  $\text{Na}_2\text{S}$  and 0.5%  $\text{NaHCO}_3$  as the sole source of carbon. The growth was carried out anaerobically and the light intensity varied between 26 and 100 lux. Bacterial growth was promoted by the short-wave part of the spectrum, including blue and green in the short-wave part of the spectrum. The dynamics of bacterial development varied with the spectral composition and intensity of the light. An increase in intensity of the short-wave and long-wave parts of the spectrum was associated with an increase in the rate of growth.

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L 44156-65

ACCESSION NR: AP5007991

green light (500-560 mμ), provided that the light flux was equal in ergs and incident quanta. The rate of bacterial development in red light (580-700 mμ) was slower than in light of full spectrum composition. Orig. art. has: 1 figure, 4

ASSOCIATION: Institut mikrobiologii AN SSSR (Institute of Microbiology, AN SSSR)

11Feb64

ENCL: 00

11Feb64

OTHER: 000

BRONSHTEYN, L.A., dotsent; APANAS'YEV, L.L., dotsent, BASH, M.S., dotsent;  
VLASKO, Yu.M., inzh.; ZEMSKOV, P.F., inzh.; KRAMARENKO, G.V.,  
dotsent; LEYDERMAN, S.R., dotsent; LIV'YANT, Ya.A., ispoln.obyazan-  
nosti dotsenta; LYUBINSKIY, N.M., inzh.; MAYDENOV, B.F., inzh.;  
FINKEL'SHTEYN, A.L., inzh.; KHROMOV, A.A., inzh.; CHUDINOV, A.A.,  
inzh.; GOBERMAN, I.M., red.; GALAKTIONOVA, Ye.N., tekhn.red.;  
DONSKAYA, G.D., tekhn.red.

[Centralized automotive freight haulage] TSentralizovannye pere-  
vozki gruzov avtomobil'nyy transportom. Pod obshchei red. I.M.  
Gobermana. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transpor-  
ta i shosseinykh dorog RSFSR, 1960. 206 p. (MIRA 13:9)

1. Moscow. Avtomobil'no-dorozhnyy institut.  
(Transportation, Automotive)

CHUDINOV, A.A., inzhener; ZININ, B.I., inzhener; RYKUNOV, A.V., inzhener.

Innovators of the motor transport industry. My '51. Gor.khoz.Mosk. 25 no.5:35-36  
(MLRA 6:11)  
(Transportation, Automotive)

CHUDINOV, A. A.

CHUDINOV, A.A., inzhener; DRUZHKOVA, M.G., inzhener.

Transport of large-size building panels by truck. Gor.khoz.Mosk. 28  
no.5:36-39 My '54. (MLRA 7:6)  
(Motor trucks--Trailers)

Chudinov, A. A.

USSR/Atomic and Molecular Physics - Heat, D-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34413

Author: Sorokina, A. I., Chudnov, A. A.

Institution: None

Title: Free Stationary Convection Between 2 Vertical Coaxial Cylinders

Original Periodical: Uch. zapiski Molotovsk. un-t., 1955, 9, No 4, 49-60

Abstract: Study of a stationary free convection in liquid, filling a cavity between 2 long vertical coaxial circular cylinders, the walls of which are perfect heat insulators, the heat being applied from below. The hydrodynamic equations are used in the usual convection approximation. The boundary conditions are taken to correspond to heat-insulating walls and the presence of an adhesion layer around them. The effect of the end portions of the cavity are disregarded, and therefore the flow lines are considered to be parallel to the axis of the cylinders; the longitudinal temperature gradient will then be constant along the axis. A conversion is made to dimensionless quantities so as to leave in the equations only a single dimensionless parameter, equal to the product of the Grashof and Prandtl numbers. The equations can be solved only for definite values of the above parameters. After a general analysis

1 of 2

- 1 -

USSR/Atomic and Molecular Physics - Heat, D-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34413

Author: Sorokina, A. I., Chudnov, A. A.

Institution: None

Title: Free Stationary Convection Between 2 Vertical Coaxial Cylinders

Original Periodical: Uch. zapiski Molotovsk. un-t., 1955, 9, No 4, 49-60

Abstract: of its spectrum, the problem is solved accurately for 2 first points of this spectrum. The corresponding distribution of the velocity and of the temperature of the liquid is obtained. The calculations are carried out approximately at various values of the ratios of the cylinder radii, and the results are given in the form of plotted equations. The first of the obtained solutions corresponds to such a motion of the liquid, in which it rises and drops in concentric layers (it rises near the internal cylinder and descends near the external cylinder or vice versa); the second solution corresponds to a motion of the liquid, in which the liquid rises on one side of any one diameter and descends on the other side. At a given ratio of cylinder radii, the first of these motions occurs at greater temperature gradients than the second. As the distance between the cylinder decreases, the temperature gradient at which the convective motion curves increases.

2 of 2

- 2 -



CHUDINOV, A. A. Cand Phys-Math Sci -- (diss) "Variation of the <sup>the</sup> ~~constant~~ <sup>of</sup> elasticity  
~~contents~~ of sodium nitrate in <sup>the</sup> 20-300°C range." Perm', 1957. 9 pp including  
cover (Min of Higher Education USSR), 100 copies. Bibliography at end of text  
(11 titles) (KL, 14-58, 109)

CHUDINOV, A. A.

**AUTHOR:** KORNFIELD M. I., CHUDINOV, A. A. 56-7-5/66  
**TITLE:** Variation of the Elasticity Coefficient of Sodium Nitrate Crystal in Phase Transitions of the Second Kind. (Izmeneniye konstant uprugosti natriyevoy selitry pri fazovom perekhode vtorogo roda, Russian)  
**PERIODICAL:** Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 33, Nr 7, pp 33-36 (U.S.S.R.)  
**ABSTRACT:** On a  $\text{NaNO}_3$  crystal the temperature dependence of its elasticity constant within the range of from 20-300° C was investigated. For the crystal constants  $S_{11}$ ,  $S_{33}$ ,  $S_{12}$ ,  $S_{44}$  the temperature dependences were measured, and in no cases except in  $S_{33}$  was a salient point found in the course of the curve at the point of phase transition. At  $S_{33}$  a marked peak formation is found. The point of phase transition (second degree) was determined at 275,5° C. (With 1 Table, 4 Illustrations, and 3 Slavic References).  
**ASSOCIATION:** Institute for Semiconductors of the Academy of Sciences of the U.S.S.R. Molotov State University (Institut poluprovodnikov Akademii Nauk SSSR, Molotovskiy gosudarstvennyy universitet)  
**PRESENTED BY:**  
**SUBMITTED:** 23.2.1957  
**AVAILABLE:** Library of Congress  
 Card 1/1

ALEKSANDROV, L.A.; AKSENOVA, Z.I.; ARTEM'YEV, S.P.; AFANAS'YEV, L.L.;  
BONSHTEYN, L.A.; BURKOV, M.S.; BUYANOV, V.A.; VMLIKANOV, D.P.;  
VERKHOVSKIY, I.A.; GOBERMAN, I.M.; DAVIDOVICH, L.N.; DNGTEREVA,  
G.N.; ZEMSKOV, P.P.; KALABUKHOV, P.V.; KOLESNIK, P.A.; KOZHIN,  
A.P.; KRAMARENKO, G.V.; KRUIZE, I.L.; KURSHEV, A.N.; OSTROVSKIY,  
N.B.; PASHINA, S.M.; SEMIKIN, N.V.; TARANOV, A.T.; TIKHOMIROV,  
A.K.; ULITSKIY, P.S.; USHAKOV, B.P.; FILIPPOV, V.K.; CHERMYAVSKIY,  
L.M.; CHUDINOV, A.A.; SHUPLYAKOV, S.I.; TIKHOMIROV, N.N.

Petr Valerianovich Kaniovskii; obituary. Avt.transp. 37  
no.4:57 Ap '59. (MIRA 13:6)  
(Kaniovskii, Petr Valerianovich, 1881-1959).

ARTEM'YEV, S.P.; AFANAS'YEV, L.L.; BELOUSOV, I.I.; BENENSON, I.M.; BRONSHTEIN,  
L.A.; BUYANOV, V.A.; VELIKANOV, D.P.; VERKHOVSKIY, I.A.; GORINOV,  
A.V.; GOBERMAN, I.M.; DAVIDOVICH, L.N.; DECTEREV, G.N.; ZVONKOV,  
V.V.; KALABUKHOV, F.V.; KOMAROV, A.V.; KUDRYAVTSEV, A.S.; LIV'YANT,  
Ya.A.; PETROV, A.P.; PETROV, V.I.; TARANOV, A.T.; TIKHOMIROV, N.N.;  
FEDOROV, V.F.; CHUDINOV, A.A.; SHUPLYAKOV, S.I.; YANKIN, Yu.S.

Anatolii Pavlovich Aleksandrov; obituary. Avt.transp. 38 no.9:57  
9 '60.

(MIRA 13:9)

(Aleksandrov, Anatolii Pavlovich, 1903-1960)

24,1800

36482

S/181/62/004/003/029/045  
B142/B102

AUTHOR: Chudinov, A. A.

TITLE: The temperature dependence of ultrasonic velocity in PbTe single crystals in the range of 80 to 640° K

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 755-758

TEXT: The elastic properties of PbTe with the space group  $O_h^5$ -Fm $\bar{3}$ m are studied in various crystallographic directions between 80 and 640° K. The elastic moduli are used to calculate the spectrum of the thermal lattice vibrations. Measurement of the ultrasonic velocities in the crystal make it possible to calculate the E-moduli. The measuring directions were in the x-axis and perpendicular to the (011)-plane. The test arrangement consisted of a cylindrical piezoquartz 16.19 mm long and 5.00 mm in diameter. The specimens (8-23 mm long, 5.00 mm in diameter) were glued to the front face of the quartz. In order to keep the measurement error low their length had been so chosen that the natural vibrations of the composite column

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The temperature dependence ...

S/181/62/004/003/029/045  
B142/B102

approached those of the quartz. The electrode arrangement was such that either longitudinal vibrations of 167.85 kcps or torsional vibrations of 121.49 kcps could be produced. Owing to the considerable transverse vibrations due to the large size of the specimens the calculated sonic velocities had to be corrected (corrections up to 20m/sec). The sonic velocity was calculated from the weights of piezoquartz and the specimen, specimen length, natural vibration frequencies of the quartz and of the composite column. It decreases linearly with increasing temperature. The following elastic moduli were obtained from the sonic velocities in the various directions and from the density at 20°C:

$$c_{11} = 10.4 \cdot 10^{11} \text{ dyn/cm}^2, \quad c_{12} = -0.437 \cdot 10^{11} \text{ dyn/cm}^2,$$

$$c_{44} = 1.30 \cdot 10^{11} \text{ dyn/cm}^2.$$

For other temperatures the elastic moduli could not be calculated since the corresponding density values were not known. The results show that

Card 2/3

The temperature dependence ...

S/181/62/004/003/029/045  
B142/B102

that PbTe does not fulfill the Cauchy relation  $c_{12} = c_{44}$ . The results were checked by calculating at 20°C in the [011] direction the sonic velocity from the values obtained and by comparing them with the data obtained experimentally; the difference was 6.5%. There are 3 figures and 7 references: 4 Soviet and 3 non-Soviet. The two references to English-language publications read as follows: R. F. S. Hearmon. Rev. of Mod. Phys., 18, 409, 1946; R. F. S. Hearmon. Advances in Physics, 5, 323, 1956. H. B. Hintington. Solid State Physics, 7, 213, 1958.

ASSOCIATION: Permskiy sel'skokhozyaystvennyy institut im. akad.  
D. N. Pryanishnikova (Perm'Agricultural Institute imeni  
Academician D. N. Pryanishnikov)

SUBMITTED: November 22, 1961

Card 3/3



L 1302h-63 EWP(q)/EWT(1)/EWT(m)/EDS AFFTC/ASD JD

ACCESSION NR: AP3000530

S/0181/63/005/005/1458/1460

AUTHOR: Chudinov, A. A.

TITLE: Dependence of ultrasonic velocities on temperature in single crystals of PbS in the interval 80-640K

SOURCE: Fizika tverdogo tela, v. 5, no. 5, 1963, 1458-1460

TOPIC TAGS: ultrasonic velocity, semiconductor, PbS, compressibility

ABSTRACT: This is a continuation of previous work by the author (FTT, 4, 755, 1962) on the elastic properties of the group of semiconductors PbTe, PbSe, and PbS. The results are shown in Figs. 1, 2, and 3 for torsional vibration and longitudinal waves in the [100] crystallographic direction and for torsional vibration in the [011] direction. It was found that velocities decrease linearly with mounting temperature. The frequencies employed in the experiment were 120-200 kc. From the velocities measured and the densities, the compressibility was determined for each type of wave and crystallographic direction investigated:  $8.00 \times 10^{-13}$  sq cm per dyne for torsional vibration along [100],  $59.3 \times 10^{-13}$  sq cm per dyne for longitudinal waves along [100], and  $-1.6 \times 10^{-13}$  sq cm per dyne for torsional vibration along [011]. Orig. art. has:

Card 1/51 Taganrog Pedagogical Inst.

PAZIRUK, K.I.; CHUDINOV, A.A.; MUKHANOVA, A.I.

Testing and use of the AKPCh 25-50 make potato processing unit.

Sakh.prom. 38 no.3:44-49 Mr '64.

(MIRA 17:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut  
krakhmalo-patohnoy promyshlennosti.

L 13394-63

ESD-3 IJP(C)/JD/JG

ENP(q)/BDS/EWT(1)/EWT(m)/EEC(b)-2 AFFTC/ASD/

ACCESSION NR: AP3000789

3/0070/63/008/003/0473/0475

AUTHOR: Chudinov, A. A.

63  
62

TITLE: Dependence of ultrasonic velocity on temperature in single PbSe crystals in the interval 80-640K

21 21

SOURCE: Kristallografiya, v. 8, no. 3, 1963, 473-475

TOPIC TAGS: ultrasonic waves, PbSe, temperature effect, torsional vibration, longitudinal waves

ABSTRACT: Descriptions of the methods of measurement and preparation of samples and of computational formulas have been published previously (M. I. Kornfel'd, Ye. M. Zhukhovitskiy. Zh. tekhn. fiz., 25, 1998, 1955; M. I. Kornfel'd, A. A. Chudinov. Zh. eksperim. i teoret. fiz., 33, 33, 1957). In the present experiment the author found a systematic decrease in velocity with increase in temperature. His results are shown in Fig. 1. These results check rather closely with computed values, though the author notes that computed and measured velocities of longitudinal waves along the  $[111]$  direction may differ by as much as 5%. He ascribes this variation to anisotropic effects. Orig. art. has: 1 figure and 5 formulas.

Card 1/3/

Perm Agriculture Institute

CHUDINOV, B.S., kandidat tekhnicheskikh nauk.

Problem of the length of heat treatment of lumber. Der. i lesokhim. prom.  
2 no.8:10-11 Ag '53. (MLBA 6:7)

1. Sibirskiy lesotekhnicheskii institut. (Lumber--Drying)

CHUDINOV, B.S., kandidat tekhnicheskikh nauk.

Nomogram for calculating heating time of wood blocks. Der. i lesokhim. prom.  
2 no. 10:20-21 0 '53. (MLA 6:9)

1. Sibirskiy lesotekhnicheskii institut.

(Lumber--Drying)

GHUDINOV, B.S., kandidat tekhnicheskikh nauk.

Coefficient of heat capacity of frozen wood. Der. i lesokhim. prom.  
3 no. 6:18-20 Je '54. (MLRA 7:7)

1. Sibirskiy lesotekhnicheskii institut.  
(Wood)

CHUDINOV, B.S., kandidat tekhnicheskikh nauk; PROKHOD'KO, Ye.P.  
~~Kandidat tekhnicheskikh nauk.~~

Calculating the time and speed of heating a layer of glue in  
plywood manufacture by the hot method. Der.prom. 4 no.4:20-  
21 Ap '55. (MIRA 8:6)

1. Sibirskiy lesotekhnicheskii institut.  
(Plywood)



CHUDINOV, B.S., kandidat tekhnicheskikh nauk.

Graphic calculation of the rate of wood heating. Der. prom. 6  
no. 4:11-13 Ap '57. (MLBA 10:6)

1. Sibirskiy lesotekhnicheskiy institut.  
(Heat--Transmission) (Veneers and veneering)

SERGOVSKIY, Pavel Semenovich, prof., doktor tekhn.nauk; CHUDINOV, B.S.,  
retsensent; SOKOLOV, P.V., red.; SIDEL'NIKOVA, L.A., red.izd-va;  
BACHURINA, A.M., tekhn.red.

[Hydrothermal treatment of wood] Gidrotermicheskaya obrabotka  
drevesiny. Moskva, Goslesbunizdat, 1958. 440 p. (MIRA 12:3)

1. Kafedra lesopil'no-strogal'nykh proizvodstv Lesotekhnicheskoy  
akademii im. S.M.Kirova (for Chudinov).  
(Wood)

CHUDINOV, B.S., kand.tekhn.nauk

Analysing the processes of thawing of frozen wood. Der.prom. 7  
no.12:10-11 D '58. (MIRA 11:12)

1. Sibirskiy lesotekhnicheskiy institut.  
(Wood research)

CHUDINOV, B.S.

Averaging the effective thermal coefficients of wood. Trudy Inst.  
lesa i drev. 65:48-65 '63.

Calculating the processes of complete and incomplete defrosting of  
wood. 66-76 (MIRA 16:10)

CHUDINOV, Boris Stepanovich; TYURIKOV, Fedor Timofeyevich; ZUBAN',  
Petr Yefimovich; BASKAKOV, Ye.D., red.

[Larch wood and its processing] Drevesina listvennitsy i  
ee obrabotka. Moskva, Lesnaia promyshlennost', 1965. 143 p.  
(MIRA 18:5)

CHUDINOV, E. G., NESMEYANOV, N. (Acad.), LEBEDEV, N. F. and LOZGACHEV, V. I.

"Isotope Exchange Method for Measuring the Velocity of Evaporation and the Coefficient of Diffusion of Solid Metals".

Report appearing in 1st Volume of "Session of the Academy of Sciences USSR on the Peaceful Use of Atomic Energy, 1-5 July 1955", Publishing House of Academy of Sciences USSR, 1955.

SO: Sum 728, 28 Nov 1955.

S/186/62/004/003/020/022  
E075/E436

AUTHORS: Chudinov, E.G., Yakovlev, G.N.

TITLE: Photometric determination of neptunium with the aid  
of quercetin

PERIODICAL: Radiokhimiya, v.4, no.3, 1962, 373-375

TEXT: A new method was sought for the determination of  $\text{Np}^{237}$  in view of the difficulties encountered with the spectrophotometric and radiometric methods used for the determination of low concentrations of Np in complex mixtures. It was established that the fourvalent Np forms with quercetin (3,5,7,3',4'-pentaoxyflavin) in  $\text{H}_2\text{O}$ -ethanol medium a yellow-green complex with the absorption maximum at 425 m $\mu$ . If the solution of quercetin is added to an acid  $\text{H}_2\text{O}$ -ethanol solution of Np, the optical density of the complex gives a sharp maximum at pH = 1.6. The optical density did not depend greatly on pH in the range of 3.0 to 7.0, if the Np solution was added to quercetin solution. The molar absorption coefficients for the Np compound under the conditions given above were 14600 and 23000 respectively. As quercetin formed complexes with many elements, Np had to be separated from  
Card 1/2

Photometric determination ...

S/186/62/004/003/020/022  
E075/E436

any admixtures. Application of the method to synthetic mixtures of Np, U and Pu containing 2.5 to 150  $\gamma$  of Np gave a relative error of 6%. The time of the determination was 5 hours. There are 4 figures and 1 table.

SUBMITTED: May 26, 1961

Card 2/2



CHUDINOV, E. G.; YAKOVLEV, G. N.

Photometric determination of neptunium by means of thoron.  
Radiokhimiia 4 no.3:375-377 '62. (MIRA 15:10)

(Neptunium—Analysis) (Benzeneearsonic acid)  
(Spectrophotometry)

CHUDINOV, E.G.; YAKOVLEV, G.N.

Reaction of pentavalent neptunium with the arsenazo 3  
reagent. Radiokhimiya 4, no.4:505-506 '62. (MIRA 15:11)  
(Neptunium compounds)  
(Arsenazo)

CHUDINOV, E.G.; YAKOVLEV, G.N.

Determination of trace amounts of neptunium with the arsenazo  
3 reagent. Radiokhimiya 4 no.4:504-508 '62. (MIRA 15:11)  
(Neptunium compounds)  
(Arsenazo)

CHUDINOV, E.G.; SHVETSOV, I.K.

Complex-forming capacity of pentavalent neptunium. Radiokhimiia  
7 no.2:188-191 '65. (MIRA 18:6)

CHUDINOV, E.G.

Study of certain organic reagents for pentavalent neptunium.  
Zhur. anal. khim. 20 no.8:805-811 '65, (MIRA 18:10)

CHUDINOV, G. M.

Chudinov, G. M. - "From the history of Yakutsk's industry," In the symposium:  
Doklady na Pervoy nauch. sessii Yakut. bazy AN SSSR, Yakutsk, 1948, p. 131-50

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

CHUDINOV, G.M.

[Capital construction in Yakutia] Kapital'noe stroitel'stvo  
v Iakutskoi ASSR. Iakutsk, Iakutskoe knizhnoe izd-vo, 1958.  
213 p. (MIRA 14:2)  
(Yakutia--Building materials industry)

CHUDINOV, G.M., kand. ekon. nauk, st. nauchnyy sotr.; POPOV, R.A., laborant; CHISTYAKOV, G.Ye., mladshiy nauchnyy sotr.; CHUGUNOV, B.V., mladshiy nauchnyy sotr.; LI, G.S., mladshiy nauchnyy sotr.; IGNATCHENKO, N.A., otv. red.; SOLOV'YEVA, Ye.P., tekhn. red.

[Power resources of the Yakut A.S.S.R.] Energeticheskie resursy Iakutskoi ASSR. Pod obshchim rukovodstvom G.M.Chudinova. Iakutsk, Iakutskoe knizhnoe izd-vo, 1962. 265 p. (MIRA 16:1)

1. Akademiya nauk SSSR. Yakutskiy filial, Yakutsk. Otdel energetiki.
  2. Zaveduyushchiy otdelom energetiki Yakutskogo filiala Akademii nauk SSSR, Sibirskoye otdeleniye (for Chudinov).
  3. Otdel energetiki Yakutskogo filiala Sibirskogo otdeleniya Akademii nauk SSSR (for all except Ignatchenko, Solov'yeva).
- (Yakutia--Power resources)



CHUDINOV, I.A., kand.filosof.nauk (Arkhangel'sk)

M.V.Lomonosov's materialistic theory of the universe. Priroda 50  
no.11:21-27 N '61. (MIRA 14:10)  
(Lomonosov, Mikhail Vasil'evich, 1711-1765)

GUR'OV, K.P.; CHUDINOV, M.G.

A correlation effect in the diffusion process in metals.  
Fiz.met.i metalloved. 20 no.2:179-182 Ag '65. (MIRA 18:9)

1. Institut metallurgii imeni A.A.Baykova AN SSSR, Moskva.

CHUDINOV, M.S.

New semiautomatic pneumatic jig. Avt. prom. 30 no.5:40  
My '64. (MIRA 17:9)

1. Moskovskiy avtozavod imeni Likhacheva.

KALENKOVICH, Ye.; AYVAZOVSKIY, V.; CHUDINOV, N. (Sverdlovsk); GENDEL'SHTEYN, M.; BESEDIN, V., dispatcher

Problems of a trip ticket. Avt.transp. 42 no.12:33-36 D '64.

(MIRA 18:4)

1. Krymskiy avtotrest (for Kalenkovich, Ayvazovskiy).
2. Starshiy ekonomist Kiyevskogo gruzovogo avtoparka No.29 (for Gendel'shteyn).
3. 3-ye Krasnodarskoye gruzovoye avtokhozyaystvo (for Besedin).

CHUDINOV, N., inzh.

Guests from the entrails of stones. Nauka i tekhn. mladezh 15  
no.1:12-13 Ja '63.

1. Minno-geolozhki institut pri Uralskii klon na Akademiata  
na naukite na SSSR.

CHUDINOV, N.P. (g.Perm')

Using school workshop equipment in teaching physics. *Fiz. v shkole*  
20 no.3:90-92 My-Je '60. (MIRA 13:11)

(Physics—Study and teaching)

CHUDINOV, Pavel Grigor'yevich; DANILIN, V.S., inzhener, nauchnyy redaktor;  
KAPLAN, M.Ya., redaktor; PUL'KINA, Ye.A., tekhnicheskiy redaktor.

[My experience in erecting large buildings using large cement blocks]  
Moi opyt montazha krupnoblochnykh zdaniy. Leningrad, Gos. izd-vo lit-  
ry po stroitel'stvu i arkhitekture, 1954. 38 p. (MLBA 8:1)  
(Building)

CHUDINOV, P.G.

[My experience in erecting large-cement-block buildings] Moi opyt  
montazha krupnoblochnykh zdanii. Leningrad-Moskva, Gos. izd-vo  
lit. po stroitel'stvu i arkhitekture, 1954. 40 p. (MLRA 7:11D)



CHUDINOV, Pavel Grigor'yevich; KARPOV, V.V., kandidat tekhnicheskikh nauk, nauchnyy redaktor; ROTENBERG, A.S., redaktor izdatel'stva; PTL'KINA, Ye.A., tekhnicheskiiy redaktor.

[Combined work teams for erecting large block apartment houses]  
Kompleksnaya brigada na montazhe krupnotekhnicheskikh zhilykh domov.  
Leningrad, Gos.izd-vo lit-ry po stroi. i arkit., 1957. 32 p.  
: (MIRA 10:6)

(Precast concrete construction)  
(Apartment houses)

CHUDINOV, P.K.

Some of the meetings of Soviet and foreign paleontologists in 1962.  
Paleont. zhur. no. 1:150 '63.

(MIRA 16:4)

(Paleontology)

USSR/Zooparasitology. Ticks and Insects - Vectors of G  
Causal Organisms. Ticks.

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104117

Author : Netskiy, G. I.; Taranyuk, G. S., Chudinov, P. I.

Inst : Omsk Scientific Research Institute of Epidemio-  
logy, Microbiology and Hygiene.

Title : Comparative Data on the Census and Its Seasonal  
Dynamics in the Ticks *Dermacentor pictus* Herm.  
and *Dermacentor marginatus* Sulz. on Virgin and  
Seeded Pastures under Conditions of the Southern  
Wooded-Steppe Area of Omskaya Oblast.

Orig Pub: Tr. omskogo n.-i. in-ta epidemiol., mikrobiol.  
i gigiyeny, 1957, No 4, 7-14

Abstract: The cultivation of virgin soils and the spread  
of cultivated pastures exert a great influence  
on the state of tick foci. Observations were

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USSR/Zooparasitology. Ticks and Insects - Vectors of G  
Causal Organisms. Ticks.

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104117

made in the environs of Omsk with the aim of studying the characteristics of distribution of *D. pictus* and *D. marginatus* in the region of occurrence of seeded pastures. Weekly examinations were made of 20 control cows, of which 10 grazed on the virgin pasture and 10 on the seeded one, and ticks were collected on gauze scrapers along the border of birchasp lumber areas. It was shown that the occurrence of seeded pastures exerts a different influence on populations of studied ticks: the proportion of *D. marginatus* increases, because the census of *D. pictus* decreases more sharply and is recovered more slowly. - L. V. Babenko

Card 2/2

ACC NR: AP6021898

(1, V)

SOURCE CODE: UR/0358/66/035/003/0369/0370

AUTHOR: Chudinov, P. I.

ORG: Omsk Institute of Wildlife Diseases, Ministry of Health RSFSR (Omskiy nauchno-issledovatel'skiy institut prirodnookhagovykh infektsii Ministerstva zdavookhraneniya RSFSR)

TITLE: Effectiveness of tick control in agricultural areas

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 3, 1966, 369-370

TOPIC TAGS: pest control, Arthropod vector, disease vector, tick, human disease, animal disease, ~~tick-borne encephalitis~~, virus disease, agriculture, ~~animal parasite~~, *encephalitis*

ABSTRACT:

Recent encephalitis outbreaks have stimulated antitick measures in Novosibirsk. From 1959-1964, treatment of the infected area reduced the average length of the infective period from 106 days to 69 days. This direct extermination of carriers had great epidemiological effect, showing the significance of forests as reservoirs for ticks since the number of ticks found on wild animals also decreased during that time.

SUB CODE: 06/ SUBM DATE: 10Jan66/

[W.A. 50; CBE No. 10]

Card 1/1

UDC: 616.988.25-084.44.542

GRODINSKY, P. K.

Dissertation: "Cotylosaur from the Upper Permian Red-Colored Deposits in the Ural  
Regaion." Cand Biol Sci, Paleontology Inst, Acad Sci USSR, 8 Jun 54.  
Vechernyaya Moskva, Moscow, 27 May 54.

SO: SUM 284, 26 Nov 1954

CHUDINOV, P.K.

Cotylosauria found in the Shikhovo-Chirki region. Dokl. AN SSSR  
103 no.5:913-916 Ag '55. (MLRA 9:1)

1. Paleontologicheskii institut Akademii nauk SSSR. Predstavleno  
Akademiom Ye. N. Pavlovskim.  
(Prosnitsa District--Reptiles, Fossil)

CHUDINOV, P.K.; V'YUSHKOV, B.P.

New data on small cotylosaurs from the Permian and Triassic of  
the U.S.S.R. Dokl.AN SSSR 108 no.3:547-550 My '56. (MLRA 9:8)

1. Predstavleno akademikom I.I. Shmal'gauzenom.  
(Reptiles, Fossil)



V. YUSHKOV, B.P.; CHUDINOV, P.K.

On the Triassic reptiles, *Microcnemus* and *Tichvinskia*. Dokl.  
AN SSSR 110 no.1:141-144 S-O '56.  
(MLA 9:11)

1. Paleontologicheskii institut Akademii nauk SSSR. Predstav-  
leno akademikom I.I. Smal'gauzenon.  
(Nikol'sk District--Reptiles, Fossil)

CHUDINOV, E.K.

Cotylosauria from the upper Permian red beds of the Ural Mountain  
region. Trudy Paleont. inst. 68:19-88 '57. (MIRA 11:4)  
(Ural Mountain region--Reptiles, Fossil)

~~CHUDINOV, P.K.~~  
V'YUSHKOV, B.P.; CHUDINOV, P.K.

Discovery of Captorhinidae in the upper Permian of the U.S.S.R.  
Dokl. AN SSSR 112 no.3:523-526 Ja '57. (MLRA 10:4)

1. Paleontologicheskii institut Akademii nauk SSSR. Predstavleno  
akademikom Ye.N. Pavlovskim.  
(Vyatka Valley--Reptiles, Fossil)

CHUDINOV, P. K.

AUTHOR: Chudinov, P. K.

20-5-39/48

TITLE: Entombment of a Pelycosaur on the Pinega River (Zakhoroneniye pelikozavrov na reke Pinege)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 859 - 862 (USSR)

ABSTRACT: In 1955 reptile relics were discovered in the investigation of Permian Old Red in the region of Arkhangel'sk. They were determined as up to now unknown pelycosaur - caseides from the USSR, and are similar to such of lower Permian of North America. The site lies 7 km below the village of Karpogory, opposite the upper part of the village of Moroznitsa. The cross section found in the excavations is described in detail. The bones were found in the layers 7 - 9. They are the following: 7) Arenaceous reddish-brown loams, solid, partly fine-stratified. The occurrence of the bones is bound to intermediate layers of brown-gray and dark gray tough loam. 8) Yellow-brown aleurolites, fine-stratified, with few bone splinters. 9) Reddish-brown sandstones, fine-grained, with very few bone splinters. The rock which contains the bones is described in detail. The bones are usually grayish-yellow, often almost black. The main part of the bones belongs to great individuals. Only one part of

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Entombment of a Pelycosaurs on the Pinega River

20-5-39/48

a jaw, of the half size, is assumed to have belonged to a young animal. Further bones of the same kind were found in a distance of circa 30 m westwards from the main site, together with not well conserved bone relics, apparently of small cotylosaurs. The animal relics were apparently simultaneously transferred, macerated, and weathered. Only few bones are considerably worse conserved and to a greater extent grinded off. Either the animals died earlier or their bones have suffered a longer transport. One can assume that the formation of dark pelite sediments was effected by a temporary regime alteration of the waters. It is possible that the swamp-lake sediments of a lower coastal plain, where the pelycosaurs lived, were eroded. In any case also the cadavers of the animals were swept away beside the surface loam- and mud sediments rich in organic substances. According to a report of M. A. Plotnikov this site belongs to the upper part of the Nizhne-Ust'ye aleurolites and is separated from the marine Kazan' sediments lying below by a mass of a thickness of more than 30 m. Then the question of the age of the concerning layers is discussed. The author agrees to the above-mentioned assumption of Plotnikov. He does not doubt that the terrestrial fauna in the north of the plate did not occur at the end of the first half of the Tartarian time (Suchona period),

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Entombment of a Pelycosaur on the Pinega River

20-5-39/48

but already much earlier. The caseide find of Pinega can be brought in close connection with the only captorinide find on the Vyatka river in the Kirov region. The caseides of Pinega and the captorinides of Vyatka are probably late representatives of this group which formerly was so manifold. Obviously their rareness is not a chance one, but due to their rareness in the total complex of the fauna of the II<sup>nd</sup> zone. If the age of the Pinega finds is estimated the relics of the edaphosaurian terapsids phreatosuchides from the copper containing sandstones of Bashkiria have to be taken into account. Therefore the statement of Ye. M. Lyutkevich that terrestrial vertebrates lack in the Kazan' sediments which are characterized by a marine fauna, is not right. The author counts the find of Pinega to the II<sup>nd</sup> zone. There are 8 references, all of which are Slavic.

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Entombment of a Pelycosaur on the Pinega River

20-5-39/48

ASSOCIATION: Paleontological Institute AN USSR  
(Paleontologicheskii institut Akademii nauk SSSR)

PRESENTED: May 7, 1957, by I. I. Shmal'gauzen, Academician

SUBMITTED: April 26, 1957

AVAILABLE: Library of Congress

Card 4/4

CHUDINOV, P.K.

Discovering reptiles in upper Permian deposits of the U.S.S.R.  
Paleont. zhur. no.1:143-145 '59. (MIRA 13:1)  
(Yeshovo region (Perm Province)—Reptiles, Fossil)



CHUDINOV, P.K.

Upper Permian therapsids excavated at Yezhovo. Paleont. zhur.  
no. 4:84-94 '60. (MIRA 14:1)

1. Paleontologicheskii institut AN SSSR.  
(Yezhovo (Perm Province)--Therapsida)

CHUDINOV, P.K., starshiy nauchnyy sotrudnik

How did life develop on earth? IUn. nat. no.12:13-14 D '61.  
(MIRA 15:1)

1. Paleontologicheskii institut AN SSSR.  
(Origin of species)

CHUDINOV, P.K.

Foreign paleontologists who visited the U.S.S.R. in 1961. Paleont.-  
zhur. no.1:173-174 '62. (Paleontology) (MIRA 15:3)

CHUDINOV, P.K., kand.biolog.nauk

Cemetery of the ancient therapsids. Priroda 51 no.4:78-84 Ap  
'62. (MIRA 15:4)

1. Paleontologicheskij institut AN SSSR, Moskva.  
(Yezhovo (Perm Province)--Therapsida)

CHUDINOV, Petr K.

New data on the fauna of the lower zones of the upper permian of the USSR

Report to be submitted for the 16th International Congress of Zoology  
Washington, D.C., 20-27 Aug 63

CHUDINOV, P.K.

Some meetings of Soviet and foreign paleontologists in  
1963. Paleont. zhur. no. 1:142-143 '64. (MIRA 17:7)

CHUDINOV, P.K.

Study of dinocephalians of the U.S.S.R. Paleont. zhur. no.2:  
85-98 '64. (MIRA 17:7)

1. Paleontologicheskii Institut AN SSSR.

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 52 (USSR) SOV/124-57-3-3023

AUTHOR: Chudinov, S. D.

TITLE: On the Lift of a Submerged Finite-span Hydrofoil (O pod'yemnoy sile podvodnogo kryla konechnogo razmakha)

PERIODICAL: Tr. Vses. nauch. inzh.-tekhn. o-va sudostr., 1955, Vol 6, Nr 2, pp 74-92

ABSTRACT: The dependence of the lift coefficient of a hydrofoil upon the parameters characterizing the shape of the profile and its position relative to the surface of the liquid and the impinging flow which is parallel to said surface is worked out. The following assumptions are made: (a) The profile is thin and cambered only slightly, (b) the flow over the profile is smooth, (c) the angle of attack is small, (d) the pressure distributions along the top and bottom surfaces are independent of one another, (e) the pressure distribution along the bottom surface of the hydrofoil is independent of the depth of submersion. These assumptions enable the author to obtain an approximate expression for the lift coefficient of an infinite-span hydrofoil. The author approaches the problem of the finite-span

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On the Lift of a Submerged Finite-span Hydrofoil

SOV/124-57-3-3023

hydrofoil on the premise of plane cross sections. The wing is represented by a straight-line segment the velocities generated along which are assumed to be identical. A plane of velocity discontinuity, equal in width to that of the hydrofoil span, extends indefinitely from the leading edge of the segment in the direction of the impinging flow. A study is then conducted on the flow potential of an imponderable liquid generated by the momentary-impulse action of the pressure forces in a plane perpendicular to the velocity vector. The characteristic function  $v = \phi + i\psi$  is extended analytically into the region of the upper half-plane above the undisturbed free surface to satisfy the boundary conditions at the free surface which is considered to be only slightly distorted. As a result a flow representation is obtained which is similar to the flow around a biplane profile. By the application of the impulse theorem and the energy theorem the author works out an expression for the lift of the hydrofoil and the angle of downwash of the flow in terms of the added mass of the biplane. On the basis of the symmetry of the flow relative to the free surface this mass is considered to be equal to the added mass ( $\lambda$ ) of a single plate that is submerged at twice the depth relative to the actual submersion of the hydrofoil. Experimental data are used to determine  $\lambda$ . Formulas for the calculation of the lift of a finite-span hydrofoil and a comparison of the calculation results with the experimental data obtained by A. N. Vladimirov (see Trudy TsAGI, 1937, Nr 311) are given in the concluding part of

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On the Lift of a Submerged Finite-span Hydrofoil

SOV/124-57-3-3023

the paper. Satisfactory agreement is shown by the comparison.

M. G. Kulayev

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Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 28 (USSR) SOV/124-57-4-4043

AUTHOR: Chudinov, S. D.

TITLE: On the Hydrodynamic Characteristics of a Cavitating Finite-span Wing  
(O gidrodinamicheskikh kharakteristikakh kaviruyushchego kryla konechnogo razmakha)

PERIODICAL: Tr. Tallinsk. politekhn. in-ta, 1955, Vol A, Nr 61, pp 3-16

ABSTRACT: The paper suggests a method of calculating the induced drag of a cavitating wing. The author applies Prandtl's scheme in which the motion of the fluid in planes perpendicular to the direction of the flight is considered as coinciding with the plane-parallel flows generated by the symmetrical translational motion of the foil. The author uses the coefficients of the added mass of the foil in this motion and calculates the velocities produced by means of the application of the momentum theorem and the energy theorem. The impulse losses and energy losses in this case are disregarded. Under the above-mentioned conditions the relationships between the lifting force, the induced drag, and the resulting velocities coincide with the usual relationships of the approximate theory of a finite-span wing in a continuous current. An

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On the Hydrodynamic Characteristics of a Cavitating Finite-span Wing

SOV/124-57-4-4043

examination of the relationship between the lift coefficient and the angle of attack of a cavitating wing for various aspect ratios shows that a greater cavitation effect is developed at higher aspect ratios. The relationships suggested in the paper may be applied in cases where thin profiles are used at small angles of attack and with sufficiently elevated cavitation coefficients. It is recommended that the boundaries of applicability of the suggested method of calculation be established by means of experiments.

D. A. Efros

Card 2/2

S/124/61/000/010/019/056  
D251/D301

AUTHOR:

Chudinov, S.D.

TITLE:

On the connection between tonnage, velocity of motion and the power of the principal engines

PERIODICAL:

Referativnyy zhurnal. Mekhanika, no. 10, 1961, 57, abstract 10 B383 (Tr. Nikolayevskogo korablestroita, 1959, no. 18, 32-39)

TEXT:

From analysis applied at an early stage of the projected vessel in order to determine the dimensions and power, the dependence relationship between the tonnage  $D$ , the velocity of motion  $v_s$  and the power of the principal engines  $N$ , expressed in terms of the admiralty coefficient  $C$ ,

$$N = \frac{D^{2/3} v_s^3}{C}$$

the author concludes that this is true only in low-speed vessels.

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On the connection...

S/124/61/000/010/019/056  
D251/D301

For high-speed vessels ( $Fr > 0.10 - 0.15$ , where  $Fr = v/\sqrt{gL}$ ,  $Fr$  is Frud's number) where the wave resistance begins to attain considerable value, the relationship stated is inexact and, therefore, it is proposed to change the constant power-index of  $v_s$  to a variable dependent on the value of  $v_s$ , leaving unchanged in consequence the simplicity of the structural dependence of the admiralty coefficient on tonnage, power and velocity of motion. On the basis of the form of the expression of the power-index of  $v_s$ , the well-known dependence of power on the towing resistance  $R$ ,  $N = Rv/75\eta$  is used. Hence the coefficient of resistance is equal to the sum of the following coefficients of resistance: frictional, residual, roughness, projecting parts, and air. The last three coefficients are considered to be independent of the velocity of motion and are taken to be identical for geometrically similar vessels. After a series of simplifying assumptions a new formula is proposed instead of the admiralty coefficient. In conclusion, a numerical example is considered on determination of the power of the principal motor and the tonnage of an auxiliary vessel of the fishing fleet, using both

Card 2/3



On the connection...

S/124/61/000/010/019/056  
D251/D301

the admiralty coefficient and the new formula. It is shown that the new formula gives an overestimated result of 19% for the power and 16% for the tonnage. [Abstracter's note: Complete translation]

Card 3/3

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CHUDINOV, S. D., Cand Tech Sci.,

"The Influence of Rudder and Screw Interaction on Ship Speed."

Papers Presented at the Tenth Scientific-Technical Conference on Ship Theory  
(Sudostoryeniye, No 4, 1960)



CH-4D1 NOV, S.M.

10 июня  
(с 18 до 22 часов)

В. М. Соловьев

Тепловые режимы полупроводниковых приборов.

В. М. Вурговалов

Исследования и расчет температурной зависимости параметров полупроводниковых транзисторов дрейфового типа.

В. Р. Никитин

В. М. Халезов

Осуществление температурной стабилизации удельного напряжения на полупроводниковых транзисторах различных типов.

М. А. Мамедов

О зависимости параметров сплавных полупроводниковых транзисторов от температуры.

В. Р. Никитин

Шумы в полупроводниковых устройствах.

11 июня  
(с 10 до 18 часов)

Г. Н. Барановский

Свойства характеристик в терминалах транзисторов и полупроводниковых транзисторов при больших сигналах.

Т. Н. Дятлов

В. М. Куралов

Исследования особенностей работы сплавных транзисторов на высокочастотных полупроводниковых транзисторах при сигналах малой и средней мощности от параметрических транзисторов.

А. М. Горюнов

Расчет усилительного каскада на транзисторах.

В. А. Кузнецов

О влиянии режима питания на полупроводниковые транзисторы на работу полупроводниковых схем.

11 июня  
(с 18 до 22 часов)

В. М. Аким

В. Р. Никитин

С. М. Куралов

Об особенностях работы в затворном режиме в области слабого сигнала.

В. Р. Никитин

Влияние температуры на параметры транзисторов.

Report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications in A. S. Popov (VSEI), Moscow, 8-12 June, 1959

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2. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy  
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